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RECENT AND FORTHCOMING MEETINGS

1950

4-11 October	WHO Expert Committee on Insecticides, second session, Geneva
9-18 October	WHO Expert Committee on International Epidemiology and Quarantine, third session, Geneva
30 October-4 November	WHO Expert Committee on the Unification of Pharmacopoeias, seventh session, Geneva
2-9 November	WHO Expert Committee on International Epidemiology and Quarantine, Legal Subcommittee, third session, Geneva
6-7 November	WHO Expert Committee on the Unification of Pharmacopoeias, Subcommittee on Non-Proprietary Names, first session, Geneva
6-11 November	WHO Expert Committee on Biological Standardization, fourth session, Geneva
6-13 November	FAO/WHO Expert Panel on Brucellosis, first session, Washington
27 November-9 December	Commission for Technical Co-operation in Africa, WHO Malaria Conference in Equatorial Africa, Kampala, Uganda
11-12 December	Preparatory Working Group on a Public-Health Administration Seminar, Geneva
11-16 December	WHO Expert Committee on Malaria, fourth session, Kampala, Uganda
11-16 December	WHO Expert Committee on Mental Health, Subcommittee on Alcoholism, first session, Geneva
11-16 December	Joint WHO/FAO Expert Group on Zoonoses, first session, Geneva

1951

8 January	WHO Executive Board : Standing Committee on Administration and Finance, Geneva
22 January	WHO Executive Board, seventh session, Geneva
January	Léon Bernard Foundation Committee, Geneva
March	WHO Expert Committee on Environmental Sanitation, second session, Geneva
April	WHO Expert Committee on International Epidemiology and Quarantine, fourth session, Geneva
April	WHO Expert Committee on International Epidemiology and Quarantine, Legal Subcommittee, fourth session, Geneva
April	Joint FAO/WHO Expert Committee on Nutrition, second session, Rome
9 April	WHO Special Committee to consider the Draft International Sanitary Regulations prepared by the Expert Committee on International Epidemiology and Quarantine, Geneva
16-25 April	WHO Expert Committee on the Unification of Pharmacopoeias, eighth session, Geneva
May	Léon Bernard Foundation Committee, Geneva
May	WHO Expert Committee on Venereal Infections and Treponematoses, Subcommittee on Serology and Laboratory Aspects, third session, Paris
7 May	Fourth World Health Assembly, Geneva

EVOLUTION AND FUTURE ROLE OF WHO

BROCK CHISHOLM, M.D.

Transcript (abridged) of an introductory statement by the Director-General to the Standing Committee on Administration and Finance of the Executive Board, 12 January 1951

It is recognized widely that the work of this Organization is increasing very greatly. Its complications are far greater than in any previous time, and bid fair to become even more complicated in the future. ...

It may be useful to take a very quick look at the situation, the changed context in which the World Health Organization is now functioning. I will not refer to political situations, which you all know as well as anyone does, but which have certain disrupting and complicating effects on the work of the Organization. But aside from that there is a most significant change in the environment, the total situation within which the World Health Organization works. Three years ago the World Health Organization, in its Interim Commission and then in its Assembly, its Executive Board, and in the Secretariat here, had to determine the policies of the Organization almost entirely from this Headquarters and in a much less complicated context. In that environment it was decided that the Organization would specialize, concentrating its work in certain special fields of action, which should be given priority. Certain priorities which you all know were then determined. This year, with continuing decentralization and within the framework of the general programme of work approved by the Assembly, the regional organs and the countries within the regions have drawn up their own programmes.... In some cases, the regional committee has approved these programmes and budgets in detail. In other cases, the countries concerned have given approval to particular parts of the programme and budget, but have not taken definitive official action approving them. This is the first major step in decentralization in the field of programme-planning.

The next step, to be accomplished I hope during the next two or three years, will be when the details of large parts of the programme will be made up actually in the countries concerned, with the assistance of the staffs of the regional offices, and approved by the regional committees. Then decentralization in this aspect of the work of the Organization will have been completed. However, there are implications to this fact. The major implication is that it is no longer possible either for the Assembly or the Executive Board to lay down from the Headquarters the details of the

regional parts of the programme, because it is being developed according to the actual needs in individual countries. It will still be within the possibilities of the Assembly, on the advice of the Executive Board or on its own initiative, to veto any particular types of programme projects, or any particular lines of development of programmes. But now it is hardly possible for the Assembly to decide what should be done by the Organization within countries where the countries themselves have, with the assistance of regional staffs and temporary consultants, and the advice of experts, which comes from many directions, decided what they need.

An attempt has been made in the programme to help each country to take the next appropriate step in its own development of its health services and its government's ability to provide its people with an opportunity to live in healthy ways. This is a new and sound development, which changes to a considerable extent the whole atmosphere in which the World Health Organization works. It is an inevitable result of the reality of efficient and genuine decentralization.

Still another set of developments is very significant—the development of the programmes of technical assistance for economic development. This new source of funds for international health work is not fully developed at the present time but provides at this moment some one and a half million dollars actually available in money to the World Health Organization. This amount will increase during 1951 to a total of perhaps over four million dollars—it may even be considerably more than that. This money is earmarked for special purposes, for programmes of technical assistance for economic development ; and this inevitably influences the direction of the development of this Organization. The other aspect of this is the development of bilateral technical assistance for economic development. A large source of this type of funds is the United States Government, which is providing very considerable amounts for bilateral technical assistance. Then also there are the Commonwealth funds for bilateral technical assistance for economic development, and certain individual countries give technical assistance to other countries. All this represents the provision of many millions of dollars for technical assistance for economic development, a very large proportion of which funds are going into the health field.

There is another important way in which the atmosphere has changed. Early in the history of this Organization, when the World Health Organization was alone in the field of provision of international health services, other organizations, UNRRA at the beginning, and later UNICEF, in particular, were in this field in terms of supply, but supply only. Now that situation has changed very greatly. UNICEF has developed overwhelmingly into a new international health organization. It is not any longer simply in the field of supply but is financing supplies, fellowships, and other services for large health developments. Inevitably this lays heavy responsibilities and requirements on the World Health Organization. We must

face the fact that, in terms of field work, WHO during 1950 has done more work for UNICEF programmes than for WHO programmes. The budget of UNICEF is very large as compared with that of WHO. The requirements of UNICEF and its demands on WHO to provide technical advice and technical controls, to examine programmes and supply technical individuals to see that those programmes are implemented in technically sound ways, have become very heavy indeed.

The " pennyworth " which the World Health Organization was able to provide is swamped and lost in this tremendous influx of vast amounts of money. Inevitably, in an atmosphere so changed, the World Health Organization must consider its orientation. The fact is that these developments are making enormous demands on the World Health Organization. They are not relieving those demands or making them less ; they are making them very much greater. All of these organizations providing very large amounts of money are greatly concerned that there should be adequate and real co-ordination throughout the whole of all these programmes. It should be most clearly understood that the terms of reference of these various organizations vary widely.... Therefore, the motives behind these programmes and the criteria by which they are judged vary greatly among the different organizations working in the health field. For example, the organizations responsible for disbursing these funds are sometimes under considerable pressure to expend them rather quickly, perhaps within a given fiscal period. They may also be under pressure to expend them on programmes which may be calculated to produce quick, spectacular, or easily demonstrable results. This also is inevitable and not to be quarrelled with since, at least at the inception of such programmes, these considerations will always be of quite considerable importance.

It appears now that the basic concern of the World Health Organization in this new context should be with the orderly development of the health services of governments, so that they may stand the impact of these very large funds which are being thrown into their countries and into their health programmes. These very large funds could be very disrupting to the development of health services, particularly in underdeveloped countries. If there is no proper proportion kept among the various developments within countries, then there is every likelihood that many health services would not be helped effectively but would actually be disrupted to a considerable extent by developing different aspects of their health services entirely out of proportion to the relative needs. These facts make the whole problem of training of technical personnel and the development of the ability of governmental services efficiently to absorb money very much more important, and greatly increase the importance of the advice and the services of the World Health Organization along these lines. The World Health Organization so far is almost alone in the degree of its concern for these particular aspects of development.

There is a further, equally important, factor in our new context. It is not actually a new factor but is one which has lately developed rapidly. This is the concern of United Nations, particularly of its Economic and Social Council, with the co-ordination of the work of United Nations and the specialized agencies, including all the projects for assistance of under-developed countries. The Economic and Social Council has passed a resolution which states its attitude in this manner in terms of concentration of effort and resources by all the agencies of the UN family. It has laid down a set of criteria in relation to projects of the United Nations and the specialized agencies which it and the General Assembly have asked the specialized agencies and United Nations to take into consideration when they are going through their processes of programme-making. These criteria in no way conflict with those set up by the three World Health Assemblies ; and, indeed, WHO was something of a pioneer along these lines. It is quite apparent that it is highly desirable that some generally comparable criteria should be used by all the agencies working in these fields.

May I say that the international and the large agencies of bilateral technical assistance are being extremely co-operative in this whole matter. They are doing everything possible to see that their efforts do not cut across the efforts of the international agencies, and a close system of liaison has been worked out and is being constantly improved to make quite sure that technical assistance for economic development does not become competitive among various agencies, particularly among international and bilateral agencies. A great danger of this whole development is the temptation to nations to shop around to get the best possible terms and as large amounts of assistance as possible from different agencies. Various methods have been developed for dealing with this possibility. In the first place, the Technical Assistance Board of the United Nations and the specialized agencies receives immediately, and now in the case of the World Health Organization directly from regional offices, copies of all requests from governments for services, whether under the regular programme or the technical assistance programme. WHO has just arranged for these notifications to go direct to the Technical Assistance Board from the regional headquarters without having first to come through this Headquarters. The Technical Assistance Board then notifies the other specialized agencies and United Nations of the request. The bilateral technical assistance authorities are also notified of all these requests. We make available to the Government of the USA, through offices here in Geneva, copies of requests for services as soon as they are received, so that its bilateral technical assistance authorities will know when anything is begun to be considered by the World Health Organization, may recognize the field in which the international organization is working, and may themselves avoid that particular field. We are working out similar arrangements with other

governments. These authorities are being meticulously careful to respect the fields in which the international organizations are working, and I think already one may say that this system is working well and that the co-ordination is developing out of a really workable and effective system.

So much for the context and the inter-agency machinery which is being developed to ensure co-ordination. The implications, however, for the World Health Organization have great importance. In effect, WHO is now dealing with the technical aspects of health programmes amounting to many millions of dollars, actually in the region of hundreds of millions of dollars, and the complications and increase in work have been very great. Every attempt has been made and is being made to keep down the staff, particularly the staff at this Headquarters ; and I hope this committee and the Executive Board will be pleased with the success of that attempt. Only very few positions have been added to this Headquarters to help the Organization to cope with the vastly increased volume of work. On the other hand, there is a considerable increase in the staffs of the regional offices. This increase is inevitable ; it will have to continue and even be accelerated. If the programmes go on as they are now, the necessity for additional staff in regional offices will be quite considerable. Already this situation is recognized, and the demands that are being made on the regional staffs are, at this time, going far beyond their capacity to cope with the amount of work involved. Inevitably many of the programmes under technical assistance involve co-ordination of the work of several specialized agencies and United Nations and one or more agencies of bilateral technical assistance. This work has to be done in the countries concerned ; there is no possibility of doing it anywhere else. The Technical Assistance Board can co-ordinate policies and general methodology and can lay down suitable techniques for administration and execution of the programme, but the co-ordination in each country will, in the end, have to be carried out in that country in co-operation with the government concerned. Already in some countries technical assistance committees have been set up. Represented on these committees are the various departments of the government concerned and representatives of one or more of the following : the UN, one or more specialized agencies, bilateral technical assistance from the USA, bilateral technical assistance of the British family of nations, UNICEF. Sometimes there have been appointed resident technical assistance representatives working on behalf of all the participating agencies in the UN programme of Technical Assistance for Economic Development. Various other people, perhaps local representatives of ECA funds, which are sometimes different from those of the USA bilateral technical assistance programmes, may also be involved. One country has actually reached the point where it has stated that the government is not capable of accepting any new developments in technical assistance, that their resources and ability to absorb technical assistance are now fully committed with what is already

planned. Many other countries would like to acquire very large amounts of materials and supplies but do not have available within their countries the technical resources which would enable them to use these supplies adequately for the good of the people.

I hope I have not too much complicated this picture, but this is the situation ; this is the new atmosphere in which this and the other international organizations are working. Inevitably, this becomes the time for re-evaluation and reconsideration of the development of the Organization and its methods of working. It is no longer as simple as it was in previous years. The process of decentralization by the World Health Organization is going on very quickly. These developments have stimulated that process extensively, and at this time much decentralization has taken place beyond that of last summer. I have quoted particularly the field of programme-planning and programme development in which it has taken place, as it has in many other fields.

In order to cope with this vastly greater complication of the work of the Organization, we have within this Headquarters made certain other ad hoc arrangements. For instance, we arranged for all the directors here, including, whenever they are available, the directors of regional offices, to consider all aspects of the work of the Organization. Among the directors of this Organization is to be found a wealth of training and experience which is perhaps unique. In bringing all the directors together rather frequently to consider generally, and sometimes in detail, the work of the Organization, we are finding that we are much more able to develop quickly, as is now necessary, sound policies in relation to an enormous variety of new developments with which the Organization must concern itself. We have also set up a smaller group, including the Director-General, the Deputy Director-General, and the Assistant Directors-General, which functions entirely on a policy basis and meets from time to time to consider, in terms of top policy, the recommendations of the directors, the recommendations from the regions, and the directions and suggestions made by the Assembly and the Executive Board. Both bodies also take into account new situations in our relationship with other agencies. These new situations inevitably now occur very frequently ; and, in many cases, since there is no precedent, the necessary policy is being formed from day to day. The problem of keeping a whole organization abreast of these rapid changes has been a difficult one, and occupies an increasing amount of the time of many members of the senior staff of this Organization....

Gentlemen, I apologize for speaking so long ; I can only plead in excuse that I feel that it is necessary to point out the existence of this new background — a new situation and environment in which this Organization finds itself—and to suggest to you the very greatly increased complications of our work.

SYMPOSIA ON SYPHILIS

Syphilologists from Europe and the USA met in Helsinki, from 4 to 10 September 1950, and in Paris, from 25 September to 7 October 1950, to attend symposia on syphilis which were sponsored by the Finnish and French health administrations, with the co-operation of WHO. Major topics of discussion were early syphilis, prenatal and infantile syphilis, neurosyphilis, and serology in syphilis. The papers presented at the symposia, and the round-table discussions which followed them, will be published in *Acta Dermato-Venereologica Scandinavica* in English and in *Prophylaxie antivénérienne* in French.

Early Syphilis

Professor C. R. Rein, of New York University, in a paper " Problems in the therapy of early syphilis ", emphasized the advantages of penicillin therapy and described five " inadequacies " which might explain why many previous evaluations of this type of treatment were not favourable : inadequate (1) dosage, (2) duration of therapy, (3) knowledge of the chemistry of penicillin, (4) interpretation of serological response, and (5) clinical evaluation.

Most important in the improvement of the efficacy of penicillin therapy has been the development of absorption-delaying preparations, which have made possible the maintenance of adequate serum concentration of the antibiotic for a sufficient length of time, e.g., above 0.03 units per ml for a period of 72 to 96 hours (Mahoney). Good results have been obtained in the USA with procaine penicillin (small particle size) in peanut oil jelled with 2% aluminium monostearate.

The accumulated experience of numerous investigators has indicated that early infectious syphilis can be cured or rendered non-infectious by penicillin alone, and that the adjuvant use of heavy metals or fever therapy does not appreciably increase the cure and improvement rate of the disease. Penicillin has also been shown to be effective in retreatment of patients in whom penicillin or other treatment has failed. Toxic and allergic reactions to the antibiotic are not considered frequent or serious enough to jeopardize its use in syphilis therapy.

Professor Rein suggested the following treatment-schedule for all patients with early infectious syphilis : on the first day, administer one injection of 4 ml of procaine penicillin in oil and aluminium monostearate (1.2 million international units) ; then, if possible, arrange to give the patient one injection of 1 ml once a day for six additional days, or 2 ml twice a week for three weeks. The advantage of this schedule is that an adequate dosage of penicillin is administered on the first day of treatment

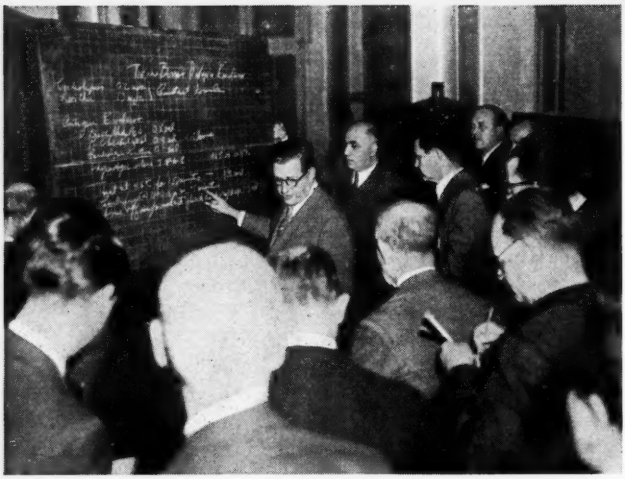
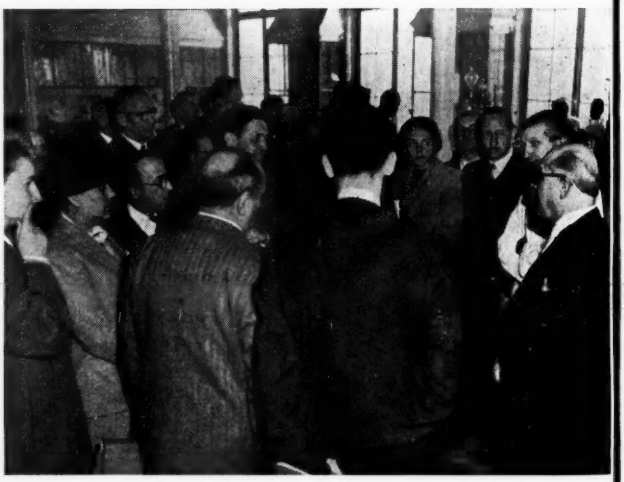


FIG. 1. INTERNATIONAL SYMPOSIUM ON SYPHILIS, PARIS—I

Professor C. R. Rein, of New York University, explaining the Rein-Bossack serodiagnostic test for syphilis

FIG. 2. INTERNATIONAL SYMPOSIUM ON SYPHILIS, PARIS—II



Participants at a visit to the laboratory of the Department of Biochemistry at the Institut Pasteur, Paris

FIG. 3. INTERNATIONAL SYMPOSIUM ON SYPHILIS, PARIS—III

Professor C. R. Rein in an informal discussion

so that, should the patient fail to return for additional therapy, the physician has a more than 90% chance of rendering the patient non-infectious and " curing " his infection.

Arsenical-bismuth therapy was discussed by Dr. P. Møller, of Copenhagen, who reported on clinical results and by-effects of its use in the treatment of 625 cases of early syphilis. He found that 75% of the patients showed no serious by-effects ; the 25% who experienced by-effects serious enough to warrant interruption of the treatment later resumed it. One death resulted. Attendance during the course of treatment was satisfactory in 76% of cases, i.e., the patients completed the course with less than one month's delay. There were 19 relapses, of which 7 were probably reinfections. Dr. Møller pointed out that penicillin treatment has the advantages of being non-toxic and of requiring much less time for completion than arsenical-bismuth therapy ; the latter, however, is still used in some clinics in Denmark, where the incidence of early syphilis is declining rapidly (4 per 10,000 inhabitants in 1948, 2.4 in 1949) and the epidemiological significance of penicillin is not as marked as in countries with a high prevalence of the disease.

Professors H. Gougerot and R. Degos, of Paris, called attention to the many problems still to be solved in the treatment of early syphilis and warned that, until there is an absolute criterion for the cure of syphilis, and until it will have been possible to observe patients treated with penicillin for at least 12 years, it is advisable to give " the double chance of cure : penicillin plus bismuth ".

Prenatal and Infantile Syphilis

In a paper entitled " The value of penicillin alone in the prevention and treatment of congenital syphilis ", Professor N. R. Ingraham, jr., reported on relevant experience over a seven-year period at the University of Pennsylvania and the Philadelphia General Hospital. His analysis revealed that, in the type of material studied, the probability of a normal, full-term, living infant's resulting from a pregnancy uncomplicated by syphilis was about 86%. Untreated early syphilis in an otherwise similar group of patients resulted in a dead or diseased infant in approximately 82% of cases ; the possibility of neonatal death was increased 6 times, and of stillbirth at term 32 times, over that of the normal control group.

Even a small amount of treatment with either arsenic and bismuth or with penicillin produced a markedly favourable effect on the outcome of pregnancy in the syphilitic patients. Effective dosage of penicillin (e.g., 600,000 units of procaine penicillin G in oil with 2% aluminium monostearate once daily for ten days, or 1.2 million units every other day to a total of 6 million units) given to 663 pregnant women with early syphilis resulted in 92.5% normal, full-term, living infants and only 1.5% living, syphilitic

infants. In the period immediately preceding the introduction of penicillin therapy, similar results were obtained in a group of 267 pregnant, syphilitic women treated for ten weeks or more with arsenicals, with or without bismuth. However, penicillin alone has become the drug of choice because of the ease of administration and short duration of the treatment, the lack of toxicity, and the ability to cure in utero the already infected foetus.

Congenital syphilis case-material was limited because of the widespread application of effective antepartum treatment of the disease, but it was possible to observe, over varying periods up to five years, 80 babies treated with penicillin alone. In surviving infants, the clinical and serological response approached perfection when treatment was begun before the fourth month of life ; in older infants, the clinical response was good, but the reversal of the blood serological test to negativity was less satisfactory. For the treatment of infantile congenital syphilis, Professor Ingraham suggested 100,000 units of penicillin crystalline G sodium per kg of bodyweight, the total dose, in an aqueous solution, being divided into 120 individual doses and given every three hours for 15 days.

Patients with late congenital syphilis were given up to 9 million or more units of penicillin, if possible on an ambulatory basis, the schedule being 600,000 units once daily of procaine penicillin in oil with 2% aluminium monostearate for 15 days, or larger doses less frequently. The blood serological test in latent or symptomatic late congenital syphilis (103 cases) showed little change during periods of observation up to five years. Late gummatous skin and bone syphilis responded promptly to such treatment without recurrence during the period of observation. In congenital neurosyphilis (37 cases), return of spinal fluid to normal or near normal following penicillin treatment was almost complete in patients observed up to seven years, and relapses were few. Interstitial keratitis associated with late congenital syphilis (22 cases) did not respond any better to penicillin than to other previously tried remedies, and the final results left much to be desired. In such cases penicillin should, if possible, be supplemented routinely by fever therapy.

Dr. E. Hollström gave a preliminary report on a follow-up study of the treatment of children for congenital syphilis, during the period 1900 to 1950, at the Welander Home in Stockholm. This study illustrated the transition in syphilis therapy from mercury preparations, to arsenic and bismuth, to penicillin and described the complications of each form of treatment, or combination of treatments, as well as the results obtained. Dr. Hollström felt that penicillin had become the drug of choice and that, thanks to such improved therapy, there might come a day—perhaps in one or two years—when institutions such as the Welander Home for congenitally syphilitic children would no longer be needed.

A large-scale campaign devoted to the case-finding of unsuspected syphilis among pregnant women in Naples was described by Professor

M. Monacelli. In this campaign, which was instituted in 1948 with the help of UNICEF and WHO, 1,241 women received penicillin treatment. In nearly all these cases syphilis was latent or undiscovered or insufficiently treated previously ; not more than 1.1% showed clinical manifestations of active and recent syphilis. The results of the treatment were less encouraging than those which have been obtained in studies of cases of early infection. Professor Monacelli therefore cautioned that, although penicillin is the drug which best meets the requisites of ideal syphilis therapy for pregnant women, final evaluation of its effectiveness, especially with regard to latent syphilis, must await the findings of many more years' observation.

Neurosyphilis

The diagnostic and therapeutic problems in neurosyphilis were discussed by Professor B. Dattner, of New York University, who stressed the importance of laboratory tests of the spinal fluid as the most reliable means of detecting the disease, following the pathologic process, and evaluating the effects of therapy. He named as essential tests accurate cell count, total protein determination, one of the colloidal reactions (e.g., the Lange colloidal gold test), and the serological procedures (i.e., complement-fixation and flocculation tests). Professor Dattner found that the cell count dropped to 3 or less cells per mm^3 within approximately six months following successful treatment of all types of neurosyphilis, and that total protein values showed a more gradual, but still relatively prompt, decrease. Such findings are evidence that the spinal fluid serves " as a mirror image of the pathologic processes in the central nervous system ".

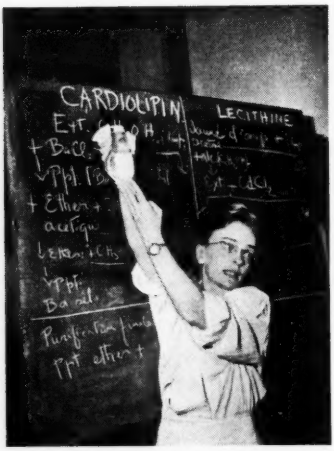
Drs. T. Putkonen and K. Rehtijarvi reported on a study, conducted in Finnish hospitals, of the febrile Herxheimer reaction in 223 neurosyphilitic patients who were given an initial dose of penicillin of at least 100,000 units. Febrile response was recorded in all (21) patients with dementia paralytica who had not had previous malarial or penicillin treatment, in 12% of the patients with asymptomatic neurosyphilis, in 16% of those with meningovascular neurosyphilis, and in 10% of those with tabes dorsalis. Previous chemotherapy with arsenicals and/or bismuth seemed to reduce febrile response to some extent, and previous malarial or penicillin treatment, to make it impossible. Increased abnormality of the cerebrospinal fluid was reflected in an increase in the incidence of febrile responses : when the cell count rose over 10, incidence increased eightfold ; when the Wassermann reaction turned positive, it increased threefold. Incidence also increased when the protein content became higher and the mastic test became abnormal.

Maximal elevation of temperature occurred a few hours later in neurosyphilis than in primary and secondary syphilis, usually 12 to 16 hours after injection of penicillin. A possible explanation for this delay is that

penicillin penetrates into the perivascular foci of spirochaetes of early syphilis more rapidly than into the spirochaetes present in brain substance.

Professors A. Baudouin and J. Lereboullet, of Paris, whose subject was " Preventive and curative treatment of neurosyphilis ", called attention to variations in therapeutic results as evaluated by clinical and by biological criteria and warned against placing too much emphasis on the finding of slight abnormalities in spinal fluid, particularly until there is agreement concerning a standard method for the examination of the fluid. In reviewing evaluations of different types of treatment of general paresis, for example, they found that various investigators recorded clinical improvement following " classical " combined malariotherapy and chemotherapy in from 21% to 60% of cases ; biological improvement, on the other hand, was recorded in 70% to 100% of cases. Similar variations were found in evaluations of penicillin therapy, clinical improvement being recorded in 46% to 80% of cases, and biological improvement, judged on the basis of statistics from other studies, exceeding 88%.

FIG 4. INTERNATIONAL SYMPOSIUM ON SYPHILIS, PARIS - IV



Dr. Mary Pangborn, discoverer of cardiolipin, illustrating steps in the preparation of cardiolipin and lecithin

These authors felt that treatment of general paresis should vary according to circumstances : combined malariotherapy and penicillin should be given in cases in which there is some urgency concerning hospitalization ; and penicillin alone, followed by malariotherapy when results with the antibiotic are unsatisfactory, should be given in cases in which the development of the disease is relatively slow and there is no hurry in the matter of hospitalization. The suggested dose of penicillin was 10 to 15 million units. Alternating series of penicillin and chemotherapy (bismuth or bismuth plus arsenic) were recommended for the treatment of evolutive tabes and of stabilized tabes, provided, with regard to the latter, that there is no continuous multiplication of the series in case of failure. Penicillin therapy was also advised for patients with syphilitic optic atrophy.

Serology in Syphilis

Dr. Mary Pangborn, of the New York State Department of Health, who isolated cardiolipin, described some of the problems in the preparation

and use of cardiolipin antigens. Chief among these are obtaining a proper balance of cardiolipin, lecithin, and cholesterol and securing adequate purification of the two phospholipid components, cardiolipin and lecithin. She suggested, as the most practical means of obtaining pure lecithin, employing lecithin from egg yolks as the standard in all cardiolipin antigens. She called attention to the necessity of running serological as well as chemical tests on all new lots of cardiolipin and lecithin and recommended that this be done on the basis of a constant antigen formula and not by restandardizing the antigen formula to allow for lack of constancy in the phospholipids.

The role of the cardiolipin antigen in the serology of syphilis was also discussed in papers by Professor C. R. Rein (New York), Professor T. Vogelsang (Norway), Mlle M. Faure (Institut Pasteur, Paris), and Dr. H. Stock (Zürich). Professor Vogelsang pointed out that it is its specificity rather than sensitivity which has made the cardiolipin antigen such a valuable aid in the serodiagnosis of syphilis. Dr. Storck called attention to the contributions of Nelson's " immobilisation test " and Neurath's " euglobulin test " and suggested that an international serological meeting should determine the most sensitive and specific complement-fixation and flocculation tests and establish them as international standards.

SCHOOL HEALTH SERVICES

Recognizing the importance of the health of school-age children as a special concern of maternal and child health services, the Second World Health Assembly authorized the convening of an expert committee to establish a framework for this part of the WHO programme.[1] The Expert Committee on School Health Services met in Geneva, from 7 to 12 August 1950,[2] to consider the health needs of this particular population group, " a segment of the lifetime of the whole population ", and to prepare an outline of the basic policies and approaches to the establishment of improved school health services.

The committee first considered the reasons for giving special consideration to the school-age group, calling attention to the importance of the problems of growth and development, and of stress, strain, and contagion.

[1] *Off. Rec. World Hlth Org.* **21**, 152

[2] The following took part in this session :

Dr. C. F. Brockington, County Medical Officer of Health, West Riding of Yorkshire, Wakefield, United Kingdom (*Chairman*)

Dr. E. C. de Castro, School Physician, Department of School Health, Municipality of the Federal District, Rio de Janeiro, Brazil

Professor J. H. de Haas, Maternal and Child Health Section, Public Health Department, The Hague, Netherlands (*Vice-Chairman*)

Miss H. Lindquist, School Nurse, Stockholm, Sweden

(continued on p. 16)

It pointed out that this particular period of life presented not only special problems, but offered unusual opportunities for teaching health principles to children and, through them, to their parents. Emphasis was placed on the function of the school as a community unit valuable in organizing health services.

Discussion of the development of school health services was organized under four headings : planning, health promotion, health appraisal, and health restoration. With regard to planning, stress was laid on the need for co-operation with parents, community agencies, etc., and for integration with other services wherever possible. The latter is particularly important since supervision of growth and development implies a continuity beginning before school age and continuing thereafter.

Promotion of health of school-age children involves many factors, including environmental hygiene, nutrition, school schedule, safety control, health of school personnel, communicable disease control, mental health, directed physical activities, and health instruction. The school serves as a " means " rather than an " end " in many of the problems concerning environmental hygiene, nutrition, safety control, and communicable disease control. In matters directly related to the school programme—schedule, physical education, etc.—the focal point is the individual child and his needs.

Adequate appraisal of the health of the schoolchild calls for continuous rather than sporadic observation, and the parts played by the parent and teacher are most important. This type of appraisal should be supplemented by periodic physical examinations, performed by a school physician, and follow-through, by a school nurse. These are optimum requirements ; in some areas, most of the burden will fall upon the teacher, who may or may not have the assistance of a nurse.

Restoration of the health of the child entails provision of treatment facilities, family co-operation, and special care for the handicapped child. Each of these presents problems for school health services.

The committee also discussed dental health, maintenance of cumulative health records, vocational guidance and the role of the health service therein, and personnel requirements. It emphasized the importance of adequate training for school health workers and of integration of the

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(continued from p. 15)

Dr. Dorothy B. Nyswander, Professor of Health Education, School of Public Health, University of California, Berkeley, Calif., USA
Dr. M. E. Wegman, Professor of Pediatrics, Louisiana State University, New Orleans, La., USA (*Rapporteur*)

Observers :

Mr. J. Bowers, Fundamental Education Section, UNESCO, Paris
Dr. F. W. Clements, Chief, Nutrition Section, WHO (representing FAO)
Miss M. Fairchild, Women and Young Workers Division, ILO
Miss L. M. Mackenzie, Social Activities Division, United Nations, New York

Secretariat :

Dr. U. Hjärne, Consultant in Maternal and Child Health (School Health), WHO (*Secretary*)
Dr. L. Verhoestraete, Chief, Maternal and Child Health Section, WHO

The report of the committee will be published in March as *World Hlth Org. techn. Rep. Ser.* **30.**

services with other community organizations or administrations ; it called attention to problems on which further study would be desirable.

In concluding its task, the committee hoped that " the ideas and suggestions developed in the course of its discussions would find practical application for the improvement of the health of school-age children in all areas ".

RABIES CONTROL IN ISRAEL

A rabies-control programme in Israel, sponsored by WHO and outlined by the Expert Committee on Rabies at its first session,[1] was put into operation in October 1950. Vaccination and registration of dogs has been undertaken in all parts of the country. It was estimated that these operations would be completed by the end of 1950.

The population in each area is advised by press, radio, and cinema that all dogs must be presented for registration and vaccination. Avianized virus from the USA is stored in refrigerators at Tel-Aviv and distributed in thermos flasks to the veterinary officers responsible for the vaccination. Immunization was commenced in the region where rabies is most prevalent, between Haifa, Tel-Aviv, and the Jordanian frontier. Immunized dogs are tattooed on the ear if they have no collar to which a metal disc can be affixed.

In view of the fact that avianized vaccine gives immunity for a year or a year and a half, no revaccination will be carried out before the end of that period.

Stray dogs are being systematically eliminated, either by shooting or gassing ; since the beginning of the campaign their numbers have considerably decreased. Three quarantine stations have been constructed, each with 20 to 30 kennels. Dogs suspected of being infected with rabies, or bitten dogs, are kept there for examination. Biting dogs which have been vaccinated are kept under observation for 10 days and released only if they present no symptoms of rabies. The brains of all suspected dogs are subjected to various examinations at a central laboratory, in Tel-Aviv, established for this purpose. Impression smears are made and then treated with Seller's stain, histopathological sections are examined, and mouse-inoculation tests are performed.

After dogs, jackals are the most dangerous vectors of rabies. Previous experiments have shown that poisoning by strychnine is the most effective method of eliminating these animals. Dead donkeys sprinkled with strychnine are used as bait. A large-scale operation is anticipated for the beginning of 1951, when a sufficient quantity of strychnine will be available.

[1] *Chron. World Hlth Org.* 1950, 4, 282

MASS BCG-VACCINATION IN CZECHOSLOVAKIA, 1948-9

A mass BCG-vaccination campaign has been carried out in Europe and elsewhere under the joint auspices of Scandinavian voluntary societies [1] and the United Nations International Children's Emergency Fund (UNICEF). Assistance of a technical nature has been rendered by WHO, the Expert Committee on Tuberculosis serving as an advisory body and the WHO Tuberculosis Research Office, Copenhagen,[2] being responsible for supervising statistical work and setting up research projects on problems relating to the campaign. Under the leadership of its technical director, Dr. J. Holm, the International Tuberculosis Campaign (ITC) has operated in Austria, Ceylon, Czechoslovakia, Ecuador, Egypt, Finland, Germany, Greece, India, Israel, Italy, Lebanon, Malta, Mexico, North Africa, Pakistan, Poland, Syria, and Yugoslavia. By the end of October 1950, some 30 million children and adolescents had been tuberculin-tested and almost half as many vaccinated with BCG.

The first of a projected series of reports from the WHO Tuberculosis Research Office on the results of the campaign in individual countries has recently been published by the International Tuberculosis Campaign.[3] This report covers the ITC campaign in Czechoslovakia, which was begun in the summer of 1948 by agreement with the Czechoslovak Ministry of Health. At the height of the campaign, 46 teams—with a personnel of about 260 workers in the field—performed approximately 350,000 tuberculin-tests per month ; the work was completed within one year. A total of 3,328,810 persons were tested and 2,118,562 vaccinated. Some 90% of the school-age group, 6-14 years old, came to be tested ; and 86% of the estimated number of non-reactors within that age-group in the entire country were vaccinated. In organization, magnitude, speed, and quality of field-work, the campaign in Czechoslovakia was a truly remarkable achievement and a highly encouraging example of successful and efficient international co-operation in which the Scandinavian organizations and UNICEF, assisted by WHO, worked hand-in-hand with national and local Czechoslovakian authorities.

The report on the campaign was prepared by the staff of the WHO Tuberculosis Research Office, Copenhagen, from records of the field teams and preliminary tabulations made at the headquarters of the campaign in Bratislava. A vast amount of material has been condensed into a concise document which, nevertheless, covers all the essential information.

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[1] Danish Red Cross, Norwegian Relief for Europe, and Swedish Red Cross

[2] *Chron. World Hlth Org.* 1950, 4, 331

[3] Yuan, I-C. & Nyboe, J. (1950) *Mass BCG vaccination in Czechoslovakia, 1948-49, with special reference to statistics on tuberculin testing and BCG vaccination*, Copenhagen

FIG. 5. BCG VACCINATION IN CZECHOSLOVAKIA

Danish nurse examining test reaction

First, the campaign is described in brief, touching on supplies and costs and extended ITC assistance for continuation of BCG vaccination under national auspices. Next, the material and its reliability are discussed in an objective manner. Then, the results of statistical tabulation and analysis are given, followed by the basic statistics on tuberculin-testing and BCG vaccination. An appendix, " Collection, tabulation and calculation of statistical data," is included to enable the reader to understand better the detailed processes of preparation.

Statistics for the campaign are given under three major headings :

(1) number of persons tuberculin-tested and vaccinated with BCG, listed by sex and age, for each of the 247 counties, for Czech and Slovak provinces, and for the entire country;

(2) number of males and females vaccinated, listed according to year of birth, in the different counties and provinces, and in the entire country ; and

(3) percentage of tuberculin-positive reactors, listed according to type of test, sex, and age, in the various geographic subdivisions.

In addition, charts and maps are presented to show the completeness of tuberculin-testing and vaccination in terms of corresponding population groups and estimated number of tuberculin-negative persons in the population, and tuberculin-sensitivity by age for urban and rural districts in Czech and Slovak provinces and for the entire country.

It is probable that this report furnishes the most complete and well-documented information available on any immunization programme of such magnitude. The cost of the campaign was approximately $600,000, shared about equally by the Joint Enterprise [4] and the Czechoslovak Government. Considering the work accomplished, this cannot be regarded as an expensive outlay.

The campaign was of a very practical nature, little attention being accorded to the possibilities for research ; but the report on the campaign has been prepared with consideration for the possibility of future attempts to evaluate the effect of BCG vaccination in terms of changes in tuberculosis

[4] This name was given to an organization formed by the Danish Red Cross, the Swedish Red Cross, the Norwegian Relief for Europe, UNICEF, and WHO.

morbidity and mortality. The report not only permits detailed comparisons among areas within the country but also provides a basis for comparisons among different countries and peoples. In future international studies on tuberculosis, this document will be an indispensable guide.

HUMAN RICKETTSIOSES IN AFRICA

The position with regard to knowledge of the human rickettsioses in Africa was recently clarified by the Joint OIHP/WHO Study-Group on African Rickettsioses.[1] During their meeting the experts presented the results of their personal investigations, as well as unpublished data which throw a new light on this question. This documentation, supplemented by information drawn from official statistics and from medical literature, has served as a basis for a study of the geographical distribution of the different rickettsioses in Africa, by Dr. M. J. Freyche, Chief, Epidemiological Information Section, WHO, and Mr. Z. Deutschman, Chief, Technological Section, WHO, which has just appeared in the *Epidemiological and Vital Statistics Report*.[2]

"There are... only four established and one probable rickettsial diseases of man, with two known variant strains in two of these diseases making in all only seven organisms... (disregarding for the moment the newly isolated cause of rickettsialpox)." This statement by Pinkerton,[3] made in 1948 and quoted by the two authors mentioned above, is a striking illustration of the advances made during the last few years towards the clarification and simplification of ideas on the epidemiology of the rickettsioses. Nevertheless, there are still many difficulties as regards these diseases: their diagnosis, which must be supported by serological tests carried out in specially equipped laboratories, is still a difficult procedure ; notification of cases is irregular ; statistics are frequently incorrect or inadequate.

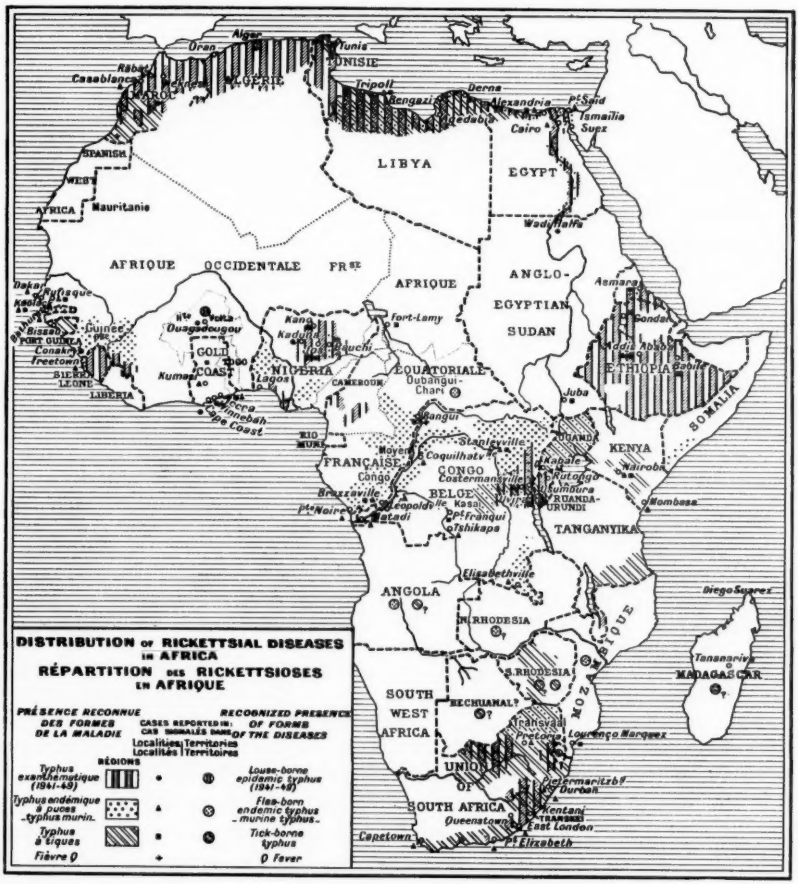
On the basis of the simplified classification of the rickettsiosis group, the authors studied in succession, exanthematic typhus (historical typhus), murine typhus, tick typhus (the vectors of which are *Ixodidae* and possibly *Argasidae*), Q fever, trench fever, and mite-borne typhus (carried by *Trombidiidae*). The incidence of each of these diseases in the various African countries is reviewed and, whenever the statistics make it possible, the extent of the endemics as well as the course and development of the epidemics are discussed with the aid of tables and graphs. Some of the conclusions

[1] The report on the work of the study-group appeared in *World Hlth Org. techn. Rep. Ser.* 1950, **23** ; see also *Chron. World Hlth Org.* 1950, **4**, 291.

[2] *Epidem. vital Stat. Rep.* 1950, **3**, 161

[3] Pinkerton, H. (1948) *The classification of rickettsiae and rickettsial diseases.* In : American Association for the Advancement of Science, *The rickettsial diseases of man : a symposium*, Washington, p. 64

FIG. 6. DISTRIBUTION OF RICKETTSIAL DISEASES IN AFRICA



given in this study—which are very similar to those formulated by the joint study-group—are reproduced below.

" *Historical typhus*, noted since the Roman era in North Africa, is still the most frequent form of rickettsiosis. . . . It is endemic in Egypt, Eritrea and Ethiopia and is present in the form of small epidemics in the whole of the territory running from the Anglo-Egyptian Sudan to Basutoland, including Uganda, Tanganyika and Nyasaland. Epidemics have also been recorded in northern Nigeria. In the Union of South Africa, it is present mainly on the high plateaux and in the Transkei, where the climate

is moderate. Its existence in tropical French Africa has never been proved; on the other hand, it is endemic in the Belgian Congo (region of Kivu) and in the Ruanda-Urundi ; in Urundi it has been epidemic."

" *Murine typhus* is not very frequent in French North Africa and does not become epidemic.... It has been noted in certain Egyptian ports and in the Suez Canal zone. It is endemic in Eritrea and Ethiopia.... In French tropical Africa, it is widespread in Senegal and French Guinea, in Middle Congo, and in Ubangi-Chari. In the Belgian equatorial African territories the virus has been identified in the rats of Coquilhatville, Leopoldville, Matadi, Elisabethville, Tshikapa and Costermansville, and some human cases have been diagnosed in these localities."

" Cases of *tick typhus* have been observed in the Anglo-Egyptian Sudan. This disease is widespread in Ethiopia and Eritrea and is found sporadically in both Europeans and Africans in Somaliland, Kenya, Tanganyika, Nyasaland, and in West Africa, on the Gold Coast and in Sierra Leone. In the Union of South Africa ' tick-bite fever ' is widespread in the veldt where it occurs mainly in the spring and autumn....

" *Boutonneuse fever* is fairly frequent in North Africa, particularly in the towns. The inoculation sore is not consistent and is sometimes replaced by a conjunctivitis which indicates the portal entry of the virus.... Boutonneuse fever has been recorded in Senegal, Guinea, Togoland, the Cameroons, in Ubangi-Chari and in the Middle Congo, and it is suspected in the Haute-Volta. Nevertheless, the etiological agent has not yet been isolated in any of these territories."

As regards *Q fever*, " extensive investigation is essential before the area of dissemination of the disease in Africa can be defined ". Its virus " has been isolated from various kinds of ticks in Morocco, Algeria and in the Sahara. The disease has been found in man in Ubangi-Chari and its presence in the west of the Transvaal has recently been proved serologically.... "

As for *trench fever* and *mite-borne typhus*, their existence on the African continent has not yet been definitely proved. In conclusion, the authors cite certain diseases observed in tropical Africa which, according to recent research, can be considered as probably belonging to one or other group of the rickettsioses. These diseases are " climatic fevers ", " African pseudo-dengue ", " African tropical typhus ", " Congolese typhus " and, in particular, " Congolese red fever " which was the subject of a study published in the *Bulletin of the World Health Organization*.[4]

An extensive bibliography, including some 450 references to papers which have appeared since 1936, is given at the end of the article.

[4] Gaud, M. (1949) *Bull. World Hlth Org.* 2, 257 ; see also *Chron. World Hlth Org.* 1949, 3, 284.

PSYCHIATRIC ASPECTS OF JUVENILE DELINQUENCY

A report prepared on behalf of the World Health Organization as a contribution to the United Nations programme for the prevention of crime and the treatment of offenders will appear in February in English and French in the Monograph Series of the World Health Organization.[1]

The author of this report, Dr. L. Bovet, Médecin-Chef de l'Office médico-pédagogique de l'Etat de Vaud, Lausanne, Switzerland, and WHO consultant in mental health, has submitted in a " personal synthesis " the conclusions reached by him after visiting about 60 institutions in several European countries and in the USA, and after discussions with more than 150 specialists in juvenile delinquency.

In contrast to the clear and well-defined legal concept of juvenile delinquency, writes the author, " neither psychiatry nor psychology can offer any such unequivocal formulation. Delinquency is not the name of an illness, nor is there one simple specific psychological category for all delinquents... ". Social " disadaptation " or maladjustment are the basic psychological phenomena of juvenile delinquency, but they do not always involve delinquency, and all delinquents are not socially maladjusted. " Nevertheless, to be brought before a court and to be subjected to various measures creates a number of psychological reactions which delinquents have in common and which give a secondary psychological homogeneity to an otherwise heterogeneous group. "

The author states " that few fields exist in which more serious coercive measures are applied, on such flimsy objective evidence ". Research could advance if, on the one hand, those engaged in it made a personal effort to be objective and if, on the other hand, public authorities and other interested groups would make available the necessary funds.

Until now, the organic and the psychogenic concepts of the etiology of delinquency have been in opposition. This must cease and research must " be orientated to the study of the ways in which constitution and environment, soma and psyche, are always involved in the manifestations of social maladjustment ". Experience, particularly that of the postwar period, has shown the importance of environment : social insecurity or a too low standard of living may lead to delinquency in the case of children who formerly have shown no important physical or psychological abnormalities. The correlation between social and psychological factors is still too little known. A study of them would be of great practical interest, since social action is often easier than psychological action. The author cites the Chicago Area Project, which is endeavouring to limit the effects of harmful social factors by getting the families themselves to co-operate

[1] This study was originally published in French only in *Bull. World Hlth Org.* 1950, 3, 63.

in the improvement of their living conditions. Such efforts should be imitated elsewhere.

Ideas concerning constitutional psychopathy and its relation to antisocial behaviour vary from country to country and from continent to continent. Modern research on the physiology of the autonomic nervous system, the significance of the electro-encephalograph, the incompatibility of blood factors, and traumata at birth will all contribute to knowledge of the part played by somatic factors in the genesis of antisocial behaviour. " The correlation between mental deficiency and delinquency, which was accepted for a long time without question, is today much debated." It appears probable that, because of their mental instability and suggestibility, mental defectives become more easily victims of unfavourable psychological and social circumstances. Organic disease and disabilities (syphilis, head injuries, epilepsy, etc.) do not play a preponderant part in the etiology of antisocial behaviour.

Among disturbances in the psychological development of personality which can play a part in delinquency, Dr. Bovet mentions : qualitative defects of the super-ego, the super-ego of the child containing an antisocial element leading to delinquency ; partial retardation of development, especially those springing from early emotional frustrations ; psychoneuroses and isolated neurotic symptoms, such as the need for self-punishment, primary aggression, and the feeling of being abandoned.

The harmful influence of the cinema, radio, and press—although often held responsible—still remains an unproven hypothesis. As regards alcoholism, it is the disastrous consequences resulting from" the psychological effects of alcoholic parents on the home atmosphere " which are of concern, rather than a so-called alcoholic heredity, which has not been scientifically demonstrated.

In the light of the preceding considerations, juvenile delinquency appears to have a threefold origin : biological, psychological, and social. The author considers that insecurity is the common factor in its multiple origin. Insecurity gives rise to anxiety, and the latter tends to set free aggressiveness which may take the form of harmless or dangerous acts. In most people these acts give rise to a feeling of guilt, which in turn produces further anxiety. This vicious circle is one of the commonest aspects of the problem of juvenile delinquency.

Far from being considered merely as a way of decreasing adult delinquency, prevention of juvenile delinquency may be regarded from a much wider viewpoint, justifying a crusade for mental health " just as the fight against tuberculosis has grown into a veritable public-health crusade." In the second part of his report, Dr. Bovet analyses the various forms which this prevention may take, according to the fields in which it is to be carried out. He mentions sociological measures, those, for example, " which enable a mother to be constantly with her child from birth and during the

first three years at least " ; the prevention of psychopathic manifestations—child-guidance services can play an important part here ; special teaching for mental defectives ; and psychological and psychiatric treatment for hospitalized children. Effective prevention can be achieved only " by doctors, psychologists, social workers, re-educators, and magistrates working together in teams ". Child-guidance teams, such as exist today in some parts of Europe and the USA, appear to be " one of the most effective ways of obtaining this co-operation ".

In the last part of the report, Dr. Bovet deals with the problem of the treatment of delinquency. Here psychiatry plays a more limited role than in prevention. Observation, diagnosis, out-patient or institutional treatment, parole and after-care on leaving the reform institution—all these stages or aspects of treatment are examined in the report. The need for those dealing with juvenile delinquency to possess " some technical knowledge, to have a good standard of general education, and to be emotionally stable " is stressed. The common primary aim of any treatment is " that of enabling a juvenile delinquent to build up stable and secure interhuman emotional relations, the proof of a feeling of inner security which is itself a foundation for his moral independence and consideration for others, and without which no human behaviour can be truly adapted to the demands of society ".

An extensive bibliography, comprising 140 references, adds to the value of the report.

Notes and News

Conference of South-East Asia Health Directors

A WHO-sponsored conference of more than thirty directors of public-health services from Afghanistan, Burma, Ceylon, India (seventeen States of the Indian Republic and French and Portuguese India), Indonesia, and Thailand was held in Kandy, Ceylon, during the last week of September. This was the first technical conference of its kind ever held in Asia.

Major-General S. L. Bhatia, Director of Public Health for Hyderabad, served as Chairman, and Colonel C. K. Lakshmanan, Director of the All-India Institute of Public Health at Calcutta, as Rapporteur. Dr. C. Mani, Director, WHO Regional Office for South-East Asia, addressed the opening meeting and asked members to furnish WHO with guidance for the development of the region's health services, to aid the Organization in planning and implementing practical programmes of assistance.

Throughout the conference there was evident a feeling of frustration due to the lack of adequate finances for health programmes and to the difficulty of convincing governments of the wisdom of spending more for the protection and promotion of health. It was proposed that public loans be used to finance all aspects of public health.

The most serious obstacle to improvement of standards of health, it was agreed, is lack of trained health-personnel. On the average, there is throughout South-East Asia only one doctor and one rural dispensary to care for each forty thousand or more of the population. The solution suggested was rapid training of an adequate number of health workers—short training courses being provided for medical assistants who would be recruited in large numbers. Such partially trained personnel could, under the supervision of medical graduates, cope with the majority of common diseases and health problems in rural areas, and could also aid in collecting vital statistics. The conference recommended that WHO and other United Nations agencies assist in creating long-term projects for training facilities. However, mindful of the local financial implications of such programmes, the delegates warned against training more personnel than could be absorbed.

The conference also stressed the need for comprehensive public-health acts in every State, and for combining the curative and the preventive aspects of health work—something still lacking in most areas. The necessity was expressed for giving directors of health direct access to health ministers, without the intermediary civil servant.

With regard to maternal and child health, emphasis was laid on the development of paediatrics, both clinical and social. The provision of midday meals in all schools, with the help of a governmental or municipal subsidy, was recommended.

The conference considered that environmental sanitation in the region had been so badly neglected in the past that the tragically high mortality from intestinal diseases, especially among children, had come to be accepted as a normal feature of life in the rural areas.

Increased Agricultural Production from Malaria Control

Statistics on summer crops in 1950, by Mr. Mansur Ahmed, Agricultural Officer attached to the WHO Malaria Control Demonstration Team in Gouripur, East Pakistan, provide a remarkable demonstration of how malaria control in a highly endemic area may beneficially influence general economy and food-growing capacity of a country.

FIG. 7. MALARIA CONTROL IN EAST PAKISTAN

Ploughing in water-covered field in East Pakistan, where malaria-control measures have increased crop yields

These statistics show that, in the DDT-sprayed area, the yield of crops increased by 15% and the man-hours of labour expended per acre decreased by 10% as compared with figures for the unsprayed control area. Another observation was that in the sprayed area no working hours were lost because of sickness, while, in the unsprayed area, working hours lost as a result of malarial and allied fevers amounted to 2.2%.

Since this project covered a relatively small area and was carried out for a short period of time, the results are to be regarded as preliminary. Many more similar experiments will have to be conducted before it is possible to confirm these favourable effects of malaria control on agricultural production.

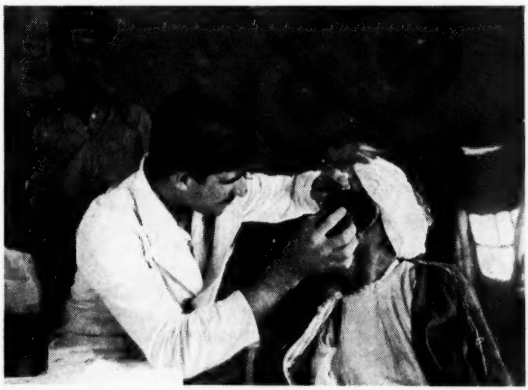
New Series of WHO Publications

The Monograph Series of the World Health Organization has been launched with the publication, in both English and French, of Dr. L. Bovet's study " Psychiatric aspects of juvenile delinquency ",[1] which appeared, in French only, in volume 3, number 1, of the *Bulletin of the World Health Organization*. The new series of publications is to include reprints and, in some cases, complete translations of articles originally published in the *Bulletin*. Second in the series will be Dr. J. Bowlby's report " Maternal care and mental health ", which is to be published in English and French editions in March.

Trachoma-Control Campaign Launched

A large-scale campaign against trachoma among the Arab refugees from Palestine in the Eastern Mediterranean Region has been undertaken by WHO. This programme, in which the newer antibiotics—chloramphenicol, terramycin, and aureomycin—are being used, is under the direction of one of the world's leading specialists in trachoma, Professor G. Bietti, of the University of Parma, Italy. The antibiotics are being supplied

FIG. 8. TRACHOMA CONTROL AMONG PALESTINE REFUGEES



Eye clinic at refugee camp

by Italian and US drug manufacturers, with the United Nations International Children's Emergency Fund (UNICEF) furnishing additional quantities as may be required.

The WHO project, which will be carefully controlled, is expected to make an important contribution to present knowledge concerning the efficacy of the antibiotics in the treatment of trachoma. The treatment of many thousands of cases will also permit determination of the best method of administration of the drugs, of optimum dosage, and of the financial cost of a complete trachoma-control campaign. Initial results will probably be ready for publication in the first half of 1951.

[1] See p. 23.

Malaria Control in Iran

A report recently received at the WHO Regional Office for the Eastern Mediterranean indicates that the antimalaria demonstration project in Iran is progressing satisfactorily. Since early last spring, 70,000,000 m² of surface in 404,690 houses have been sprayed with DDT, an operation affording protection to about 700,000 persons.

Team personnel consists of local doctors and other experts, including a WHO-trained entomologist. Technical assistance is given by Professor M. Giaquinto, who is in charge of the WHO malaria advisory team, Mr. C. Garrett-Jones, entomologist, and Mr. P. Stevens, a sanitary engineer. A central laboratory for evaluating the results of the epidemiological and entomological surveys undertaken by the teams is being established at Teheran.

Malaria represents a serious obstacle to economic development in Iran, and it is expected that long-term achievements of control measures will include a considerable expansion in agricultural production.

Dental Health Survey in Middle East

Dr. P. E. Blackerby, jr., Director of the Division of Dentistry, Kellogg Foundation, Battle Creek, Mich., USA, now serving as a temporary WHO consultant, visited Egypt and Iran to survey dental health needs. He had previously visited Belgium, France, Holland, Sweden, and the United Kingdom. Particular points of interest in Dr. Blackerby's inquiry were the training of dental personnel, governmental dental health service programmes, and the public-health or preventive aspects of dental health.

Leprosy Treatment Demonstrated in Ethiopia

The use of sulphetrone, one of the latest antileprosy drugs, has been demonstrated in Ethiopia, where there are estimated to be 15,000 to 20,000 leprosy cases. The demonstration was carried out by Dr. M. A. K. Dalgamouni, whose services were lent to WHO by the Egyptian Ministry of Public Health, of which he is Director of the Leprosy Section. Dr. Dalgamouni has had considerable success with sulphetrone in Egypt in the treatment of some 4,000 cases. WHO supplied 230,000 g of the drug, together with syringes and needles for its administration, for the demonstration, concerning which a report will be made to Sir Aly T. Shousha, Pasha, Director of the WHO Regional Office for the Eastern Mediterranean.

48th Anniversary of Pan American Sanitary Bureau

The Pan American Sanitary Bureau, WHO Regional Office for the Americas, celebrated its 48th anniversary on 2 December 1950. Dr. F. L. Soper, Director of the Bureau, acted as Chairman at the celebration ceremony, at which messages were read from US President H. S. Truman, WHO Director-General Dr. Brock Chisholm, and others. President Truman's message read, in part :

" The achievements of the Pan American Sanitary Organization since its founding have received recognition from public health authorities the world over. We look for even greater accomplishments by the organization in the future as it works toward attainment of better health conditions for the people of the Americas and thereby contributes to an advancement of their economic and social well-being."

Principal speakers were Dr. Soper, Dr. W. Manger, Assistant Secretary-General, Organization of American States, and Dr. E. L. Stebbins, Director, School of Hygiene and Public Health of Johns Hopkins University, Baltimore, Md., USA. Dr. Stebbins, in discussing " The future of international public health relations ", commented, " If we may judge from the experiences of the last few years, there is evolving a new concept

FIG. 9. 48TH ANNIVERSARY OF THE PAN AMERICAN SANITARY BUREAU

Speakers on the platform. Left to right : Dr. F. J. Brady, Assistant Chief, Division of International Health, US Public Health Service ; Dr. M. E. Bustamante, Secretary-General, Pan American Sanitary Bureau ; Dr. L. L. Williams, jr., Chief, Division of International Health, US Public Health Service ; Dr. F. L. Soper, Director, Pan American Sanitary Bureau ; Dr. E. L. Stebbins, Director, School of Hygiene and Public Health, Johns Hopkins University ; Dr. W. Manger, Assistant Secretary-General, Organization of American States ; Dr. J. R. Murdock, Assistant Director, Pan American Sanitary Bureau, and Dr. H. van Zile Hyde, Director, Health and Sanitation Division, Institute of Inter-American Affairs

of international health activity. In a sorely troubled world searching for some common ground on which nations may work together for the improvement of the lot of mankind, public health stands out as a rallying point for international co-operation unhampered or at least less hampered by political and ideological pressures than almost any other area of international contact ". All of the speakers paid tribute to the important contributions which the Pan American Sanitary Bureau has made to international public health and expressed satisfaction in its joining forces with WHO.

Studies on BCG Vaccination

A series of studies on BCG vaccination, planned as a co-operative undertaking of the Joint Enterprise, the Statens Seruminstitut, Copenhagen, and the WHO Tuberculosis Research Office, also in Copenhagen, is appearing in the *Bulletin of the World Health Organization*. The first of the series, published in volume 3, number 1, of the *Bulletin*, has as subject " Effect of age of vaccine and variation in storage temperature and dosage on allergy production and vaccination lesions ten weeks after vaccination " ; the second, published in volume 3, number 2, is entitled " Effect of variation in dosage of BCG vaccine on allergy production and vaccination lesions nine weeks after vaccination ". It is hoped that these studies will throw new light on BCG vaccination and will solve some of the problems in its administration.

Chinese Edition of the Chronicle

Publication of the Chinese edition of the *Chronicle of the World Health Organization* was recently resumed in Hongkong. Numbers 1, 2, and 3 of volume 3 (1949) have appeared in a single issue and will shortly be followed by other numbers. Copies of the Chinese *Chronicle* are available on request made to the WHO Temporary Regional Office for the Western Pacific, P.O. Box 3247, 48 Kadoorie Avenue, Kowloon, Hongkong.

Weekly Epidemiological Bulletin Now on Sale

The *Weekly Epidemiological Bulletin* published by the WHO Regional Office for the Eastern Mediterranean, previously distributed free of charge to national health-administrations and to health services at ports and frontiers in the region, is now on sale at a price of 2 piastres a copy. This *Bulletin*, which was originally issued by the Regional Sanitary Bureau for the Near East and, later, by the Pan-Arab Regional Health Bureau, contains notifications concerning diseases designated as " pestilential " in the International Sanitary Conventions, as well as information about the application of the Conventions. It is a mimeographed, bilingual report published in English and French. Requests for this publication should be addressed to the WHO Regional Office for the Eastern Mediterranean, P.O. Box 1517, Alexandria, Egypt.

WHO Director-General Receives Honorary Degree

The University of Nancy, France, at its ceremonies opening the new academic year, conferred the degree of Doctor Honoris Causa of the University and of the Medical Faculty on Dr. Brock Chisholm, Director-General of WHO. The ceremonies were presided over by the French Minister of Education, M. P. O. Lapie. Professor J. Parisot, Dean of the Medical Faculty of the University, presented Dr. Chisholm and spoke of the Director-General's career and of the work of WHO. In his reply Dr. Chisholm praised the co-operative interest of France in the Organization's activities and paid tribute to Professor Parisot as a forerunner of medicine's new orientation toward social hygiene. He accepted the honour as one bestowed upon WHO, " its true object ", and saw in it " a symbolic and hopeful manifestation of the constructive role that the medical élite of the world can play in fostering international understanding for the greater good of mankind ".

Views on WHO

WHO, FAO, and Nutrition

In connexion with the report on the first session of the Joint FAO/WHO Expert Committee on Nutrition,[1] the following note appeared in a recent issue of the *Lancet*, London (1950, **2**, 580) :

" Two United Nations agencies, W.H.O. and the Food and Agriculture Organisation (F.A.O.), both have nutrition sections, and a joint expert committee was set up to coördinate them. This met for the first time in Geneva a year ago, and the report of its first meeting has now been published. In brief, it recommended the continuance of established policies—notably the co-ordination of technical knowledge by the organisation of regional nutritional conferences, the publication of technical memoranda, and the promotion of education, primarily by the award of travelling fellowships. In these ventures F.A.O. will lay emphasis on nutrition in relation to the production, distribution, and consumption of food ; in W.H.O. emphasis will be on nutrition in relation to the maintenance of health and the prevention of disease. In these fields both F.A.O. and W.H.O. have already proved their ability, and we can look forward to hearing fresh accounts of good work.

" A new recommendation put forward by the committee was that W.H.O. should itself undertake field research, and endemic goitre and kwashiorkor were considered suitable subjects for investigation. This would be an important new departure. The question whether U.N.O. is a suitable organisation for initiating and planning new research has already been debated at length. Such projects are bound to meet two difficulties. The first would be to recruit first-class investigators ; at a time when almost all countries are short of scientists of the front rank, it would be hard to collect a good international team without seriously weakening national research services. Secondly, an international research group would have to be very circumspect if it was to maintain harmonious relations with research-workers and officials in the country in which it was operating. True, this is no fundamental objection, but it is easy to visualise real difficulties arising in practice. Certainly it would not be easy for F.A.O. and W.H.O., as discoverers of new knowledge, to repeat the successes which they have already achieved as coördinators of research and as educationists."

[1] *World Hlth Org. techn. Rep. Ser.* 1950, **16**

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No. 1

LUCIEN BOVET

PSYCHIATRIC ASPECTS OF JUVENILE DELINQUENCY

While according to law juvenile delinquents form a homogeneous group, according to the psychiatrist they comprise various types of socially maladjusted children. Whether the criminal tendencies of these delinquents derive from adverse social factors, uncertain material or emotional conditions, or instability through psychological disturbances, they inevitably lead to feelings of insecurity, out of which are born anxiety, followed in a vicious circle by aggressiveness, feelings of guilt, and further anxiety.

Any rational prophylaxis must be directed against the basic disorders of which juvenile delinquency is a sign. The problem can, perhaps, be approached most successfully through close co-operation between doctors, psychologists, social workers, re-educators, and magistrates, as in the existent child-guidance teams ; in fact, juvenile delinquency must become the starting point and raison d'être of a vast mental health campaign.

The primary aim of treatment is " that of enabling a juvenile delinquent to build up stable and secure interhuman relations, the proof of a feeling of inner security which is itself a foundation for his moral independence and consideration for others, and without which no human behaviour can be truly adapted to the demands of society ".

These few conclusions are drawn from Dr. Bovet's extensive review of the established facts and generally accepted theories on juvenile delinquency, its etiology, prevention, and treatment. The impressions gathered during a tour of America and Europe, where Dr. Bovet consulted over 150 specialists on juvenile delinquency and visited many institutes, help to make this an up-to-date account, whose object has been to set out the multiplicity of the problems involved rather than to solve them.

The report was prepared on behalf of the World Health Organization as a contribution to the United Nations programme for the prevention of crime and the treatment of offenders. It is written, therefore, not merely for the specialist but for the intelligent reader who is aware of the vital importance of this problem.

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